REMARKS

The claims are claims 1 to 3 and 9 to 12.

Claims 1 to 3 and 9 to 11 were finally rejected under 35 U.S.C. 103(a) as made obvious by S. Bloebaum et al. U.S. Patent 6,070,137, filed January 7, 1998.

Claims 1 and 9 recite subject matter not made obvious by Bloebaum et al. Claim 1 recites "calculating a smoothed power estimate by smoothing the power estimate over time." Claim 9 recites the noise suppression circuit operates to "calculate a smoothed power estimate by smoothing the power estimate over time." The FINAL REJECTION demonstrates that Bloebaum et al fails to make this limitation obvious. In particular, the FINAL REJECTION shows that Bloebaum et al teaches smoothing over time of a different signal than that claimed in claims 1 and 9.

Claim 1 recites calculation of "a gain function from the noise estimate and the smoothed power estimate." Claim 9 recites the noise suppression circuit operates to "calculate a gain function from the noise estimate and the smoothed power estimate." The FINAL REJECTION states at page 4, lines 11 and 12 that Bloebaum et al teaches:

> "• calculates a gain function from the signal and noise power estimates (enhancement filter, col. 6, lines 8-10);"

This portion of the FINAL REJECTION refers to Figure 4 of Bloebaum et al. This Figure 4 illustrates transform and filter computation block 56 receiving the power spectral density (PSD) estimate represented by $|S(e^{j\omega})|^2$ from block 44 and the noise vector N from noise model adaptation block 46 and producing enhancement filter $|H(e^{j\omega})|$. In order for the Examiner's statement at page 4, lines 11 to 12 of the FINAL REJECTION to be true, one input to transform and

filter computation block 56 must correspond to the claimed noise estimate and the other input must correspond to the claimed smoothed power estimate. Bloebaum et al states at column 5, lines 58 and 59:

> "The forward transform G converts the noise vector N into the noise PSD estimate $|N(e^{j\omega})|^2$."

Thus this input to transform and filter computation block 56 must correspond to the claimed noise estimate. Accordingly, the other input to transform and filter computation block 56 $|S\hat{}(e^{j\omega})|^2$ must correspond to the claimed noise estimate must correspond to the claimed smoothed power estimate. However, Bloebaum et al fails to teach that this input is smoothed over time as required by the language of claims 1 and 9. Bloebaum et al states at column 5, lines 60 to 62 referring to variance reduction block 58:

> "The Variance Reduction block receives as input $|S(e^{j\omega})|^2$ and applies a smoothing function in the frequency domain to generate an output $|S\hat{}(e^{j\omega})|^2$."

Thus Bloebaum et al clearly teaches $|S\hat{}(e^{j\omega})|^2$ is smoothed in the frequency domain and not smoothed over time as recited in claims 1 and 9. The Applicant respectfully submits that disclosure of smoothing in the frequency domain fails to make obvious the smoothing over time of claims 1 and 9.

In summary, Bloebaum et al teaches a calculation of a gain or filter function in transform and filter computation block 56 similar to the recitations of claims 1 and 9. In Bloebaum et al, one input $|N(e^{j\omega})|^2$ is related to the noise estimate and the other input $|S\hat{}(e^{j\omega})|^2$ is related to the power estimate. Claims 1 and 9 recite smoothing over time of the power estimate related input. Bloebaum et al teaches smoothing over time of noise estimate related term. This is the other input than that recited in claims

1 and 9. In addition, Bloebaum et al teaches smoothing in the frequency domain of the power estimate related input which is contrary to the language of claims 1 and 9. Accordingly, Bloebaum et al fails to make obvious claims 1 and 9.

The FINAL REJECTION cites variance reduction 64 described in Bloebaum et al at column 8, lines 6 to 8 and illustrated in Figure 5 as teaching the recited smoothing over time with reference to Bloebaum et al at column 5, lines 38 to 44. As pointed out in previous responses, Bloebaum et al at column 5, lines 38 to 44 teaches smoothing over time of the noise vector N produced by noise model adaptation block 46. This smoothing over time is not applicable to variance reduction 64 of Figure 5. Bloebaum et al states at column 8, lines 1 to 10:

> ""This alternate version is denoted by block 62 and is shown in FIG. 5. The principal novelty of the block 62 versus the block 56 is that the enhancement filter is computed in the domain of the noise model and then transformed to the sampled frequency domain. In FIG. 5, the signal model vector S is input to the Variance Reduction block 64, which outputs a smoothed version of S denoted S^. This vector S and the noise model vector N are input to the Enhancement Filter Computation block 66."

This teaching of Bloebaum et al fails to state that variance reduction block 64 smoothes over time as required by the language of claims 1 and 9. Because Figure 5 is taught as an alternative to Figure 4, one skilled in the art would believe that variance reduction block 64 operates similarly to analogous variance reduction block 58 of Figure 4. As quoted above, Bloebaum et al states at column 5, lines 60 to 62 variance reduction block 58 smoothes in the frequency domain. Accordingly, variance reduction block 64 also smoothes in the frequency domain. Thus claims 1 and 9 are not made obvious by Bloebaum et al.

Claims 2, 3, 10 and 11 are allowable by dependency upon allowable base claims.

The Applicants respectfully request entry and consideration of this amendment. Entry of this amendment is proper at this time because no new search or reconsideration is required.

The Applicants respectfully submit that all the present claims are allowable for the reasons set forth above. Therefore early entry of this amendment, reconsideration and advance to issue are respectfully requested.

If the Examiner has any questions or other correspondence regarding this application, Applicants request that the Examiner contact Applicants' attorney at the below listed telephone number and address to facilitate prosecution.

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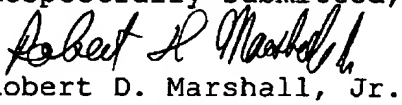
Respectfully submitted,



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